TABLE I. Summary of capacitors and their performance.

Capacitor Type	Specifications	Remarks
Polymer Films *Polypropylene* *Polycarbonate* *Ultem*	0.01 – 50 µF, 100 – 1000 V	- Good performance between 20 °C and – 196 °C
Aluminum Electrolytic (Liquid)	47 µF, 63 V	- Severe degradation at about – 20 °C
Tantalum Electrolytic (Liquid)	47 µF, 20 V	- Appreciable degradation at about – 50 °C
Solid Aluminum	0.1 µF, 25 V	- C is stable, DF increases with temperature down to -196 °C
Solid Tantalum	0.1 µF, 100V	- C is stable, DF increases with temperature down to -196 °C
Polymer Aluminum	2.2 µF, 16 V	- Good stability to about – 150 °C
Glass	0.1 µF, 25 V	- C decreases, DF increases with temperature down to – 196 °C
Mica	0.01 µF, 500 – 1000 V	- Excellent stability down to – 196 °C
CRX Ceramic	1 µF, 12 V	- Excellent stability down to – 196 °C
NPO Ceramic	0.056 µF, 25 V	- Excellent stability down to – 196 °C
Electro Double-Layer *6 types*	0.1 – 8 F, 2.5 – 5.5 V	- Good behavior to only -40 °C - full recovery after aging

No significant undesirable effect of low temperature was observed on the leakage current property of all capacitors.

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